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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,321	08/26/2003	Susumu Kinoshita	21.1997-C	2029
21171	7590	08/02/2006	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005				DIACOU, ARI M
			ART UNIT	PAPER NUMBER
			3663	

DATE MAILED: 08/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/647,321	KINOSHITA ET AL.
	Examiner	Art Unit
	Ari M. Diacou	3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 02 June 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 35-39 and 41-46 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 35-39 and 41-46 is/are rejected.  
 7) Claim(s) 46 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 02 June 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. In the remarks filed 6-2-2006, applicant argued the following:
  - A. On page 5, that replacement sheets have been filed to correct that which was objected by the examiner.
  - B. On page 5, that the serial number of the base reference was wrong, but corrected during a telephone call. The applicant asks that the next office action be non-final.
  - C. On pages 5-6, that the instant application is really a continuation of case 09/790507 (which was not noted in the Bib Data sheet nor the PALM database due to an error), therefore the Inagaki reference is not available under 102(b) because the US filing date is 23 February 2001.
  - D. On page 6, that Inagaki does not disclose all the claimed features.
2. Argument A. is convincing the objection is hereby withdrawn.
3. Argument B is moot in view of the new grounds of rejection.
4. Argument C. is convincing the rejection is hereby withdrawn, but a new grounds of rejection follows below. Furthermore, the examiner has looked into the matter and the continuation data was properly identified in the preliminary amendment to the instant application filed 8-26-2003. The continuity data has been changed and no additional fees are required for this change.
5. Argument D is moot in view of the new grounds of rejection.

### ***Specification***

6. Claim 45 is objected to because of the following informalities: there are two claims numbered 45. For the purposes of examination, the rest of this action will refer to the second claim 45 (the independent one) as claim 46. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 35-39, and 41-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugaya (USPAP No. 5995274).

- Regarding claim 35, Sugaya discloses an optical amplifier comprising:
  - a plurality of optical amplification mediums for producing a gain, the gain having gain characteristics; [Fig. 27, #122]
  - a gain controller *constantly maintaining the gain for each optical amplification medium*; [#60<sub>1</sub>]
  - and a gain-equalizer positioned after each optical amplification medium *and equalizing the gain-characteristic of the optical amplification mediums*,

each gain-equalizer equalizing the gain characteristics of the preceding optical amplification medium. [#64]

- Regarding claim 46, Sugaya discloses an optical amplifier, comprising:
  - a plurality of optical amplification mediums for producing a gain, the gain having gain-characteristics; [Fig. 27, #122]
  - a gain controller maintaining a constant population inversion ratio for each of the optical amplification mediums; and [#60<sub>1</sub>]
  - a gain-equalizer positioned after each optical amplification medium, and equalizing the gain-characteristics of the optical amplification medium, each gain-equalizer equalizing the gain-characteristics of the preceding optical amplification medium. [#64]
- Regarding claim 36, Sugaya discloses an optical amplifier according to claim 35, wherein the gain equalizers have nearly the same gain characteristic. [Sugaya discloses all amplifier stages 122 as the same]
- Regarding claim 37, Sugaya discloses an optical amplifier according to claim 35, wherein the optical amplifier mediums have nearly even gain characteristics. [Fig. 18c]
- Regarding claim 38, Sugaya discloses an optical amplifier according to claim 35, wherein the optical amplification mediums are made of erbium doped fibers. [Col. 6, lines 57-59]
- Regarding claim 39, Sugaya discloses an optical amplifier according to claim 35, wherein the constant gain of the optical amplification mediums is associated with

an inversion ratio of about 0.8 to about 1.0 within the amplification medium. [The inversion ratio is a direct result of the pumping power, this is therefore a statement of intended use/method limitation]

- Regarding claim 41, Sugaya discloses an optical amplifier according to claim 35, wherein the gain equalizer obtains equalized gain within a wavelength-band from about 1490 nm to about 1530 nm.
- Regarding claim 42, Sugaya discloses an optical amplifier according to claim 35, wherein each gain equalizer attenuates gain at a peak wavelength. [Inherent, since no tunable filter can attenuate evenly over the continuum of electromagnetic frequencies, nor can it have an infinite attenuation at any frequency, therefore all filters must therefore attenuate at one frequency more than others, and thus, every filter in an optical amplifier attenuates gain at a peak wavelength.]
- Regarding claim 44, Sugaya discloses an optical amplifier according to claim 35, wherein each gain equalizer produces an output, and the output has a nearly even gain characteristic. [Fig. 18c]
- Regarding claim 45, Sugaya discloses an optical amplifier according to claim 35, wherein each gain equalizer equalizes the gain-characteristic with a nearly even gain characteristic. [Fig. 18c]

***Conclusion***

9. While patent drawings are not drawn to scale, relationships clearly shown in the drawings of a reference patent cannot be disregarded in determining the patentability of claims. See In re Mraz, 59 CCPA 866, 455 F.2d 1069, 173 USPQ 25 (1972).

10. The references made herein are done so for the convenience of the applicant. They are in no way intended to be limiting. The prior art should be considered in its entirety.

11. The prior art which is cited but not relied upon is considered pertinent to applicant's disclosure.

12. As to limitations which are considered to be inherent in a reference, note the case law of In re Ludtke, 169 U.S.P.Q. 563; In re Swinehart, 169 U.S.P.Q. 226; In re Fitzgerald, 205 U.S.P.Q. 594; In re Best et al, 195 U.S.P.Q. 430; and In re Brown, 173 U.S.P.Q. 685, 688.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ari M. Diacou whose telephone number is (571) 272-5591. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571) 272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AMD 7/25/2006

JACK KEITH  
SUPERVISORY PATENT EXAMINER